



PLAN VIEW OF ROADWAY SHOWING JOINTS

- ♦ MAXIMUM JOINT SPACING AT 18' WHEN PAVEMENT IS PLACED ON PERMEABLE BASE.
- ⊕ USE TYPE LCJ JOINT WITH SPLIT SLAB CONSTRUCTION.
- ⊕ WHEN POSSIBLE, AT CATCH BASINS NO JOINTS SHALL BE PLACED IN THE LIMITS SHOWN.
- ▲ TRANSVERSE JOINTS NEAR CATCH BASIN (CB-07, 08 & 09) THAT EXTEND INTO THE PAVEMENT SHALL BE ADJUSTED TO COINCIDE WITH ONE EDGE OF THE CATCH BASIN OR THE CENTER OF THE CATCH BASIN. SEE DETAIL G, SHEET 3.
- Ⓜ SEE SECTION C-C SHEET 2 FOR TYPE EJ-MODIFIED JOINT.
- ★ CJ OR TCJ JOINTS AT 20' MAX. CTRS.

NOTES:

- PAVEMENT EDGES SHALL BE SLIGHTLY ROUNDED (1/4" APPROX.).
- ASPHALTIC CONCRETE SHOULDER: THE SHOULDER JOINTS SHALL BE SAW CUT AND CONSTRUCTED IN ACCORDANCE WITH SECTION I-I.
- FOR SECTIONS C-C, E-E, F-F, G-G, H-H, I-I & K-K, SEE SHEET 2 OF THIS STANDARD.
- ALL JOINTS TO BE USED WHERE SHOWN ON THIS SHEET OR AS SHOWN ELSEWHERE IN THE PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER.
- ON TYPE EJ JOINTS, SPOT WELD ALTERNATE ENDS OF DOWEL BARS TO DOWEL BASKETS AND PLACE EXPANSION TUBES ON FREE ENDS OF DOWEL BARS.
- TYPE EJ JOINTS SHALL BE SEALED WITH PREFORMED ELASTOMERIC COMPRESSION JOINT SEALS CONFORMING TO SUBSECTION 1005.03 OR 2 COMPONENT SILICONE CONFORMING TO 1005.02(D). THE SEALS SHALL HAVE A NOMINAL WIDTH OF 2 1/4" BEFORE COMPRESSION. JOINTS SHALL BE CLEANED PRIOR TO SEALING.
- FOR DESIGN SPEEDS GREATER THAN 45mph:
  - TYPE LJ JOINTS SHALL BE SAW CUT AND CONSTRUCTED AS IN DETAIL "F". THE JOINT SHALL BE SAW CUT AND CLEANED PRIOR TO SEALING WITH A JOINT SEALANT CONFORMING TO SUBSECTION 1005.02(A) OR (C).
  - TYPE TCJ OR CJ SHALL BE SAW CUT AS SHOWN IN DETAIL "C" OR "D" AND TO THE DEPTH SHOWN IN TABLE 1. THE JOINT SHALL BE SAND BLASTED AND CLEANED IMMEDIATELY PRIOR TO SEALING. THE INITIAL CUT SHALL BE MADE WITH 1/8" MINIMUM BLADE. THE SEALANT SHALL BE A PREFORMED ELASTOMERIC SEAL IN ACCORDANCE WITH SUBSECTION 1005.03 OR A SILICONE SEALANT IN ACCORDANCE WITH SUBSECTION 1005.02(C).

- FOR DESIGN SPEEDS OF 45mph OR LESS:
  - TYPE LJ JOINTS SHALL BE SAW CUT AND SEALED AS DESCRIBED IN 7(A).
  - TYPE TCJ OR CJ JOINTS SHALL BE CONSTRUCTED AS FOLLOWS:
    - CONSTRUCTED AS DESCRIBED IN 7(B).
    - WITH A REMOVABLE FORMING DEVICE AS SHOWN IN DETAILS "A" OR "B". THE JOINT SHALL BE SAND BLASTED AND CLEANED IMMEDIATELY PRIOR TO SEALING AND MAY REQUIRE SAWING TO ACHIEVE PROPER RESERVOIR DIMENSIONS.
    - WITH A COMBINATION JOINT FORMER/SEALER AS SHOWN IN DETAIL "E". THE SEALER SHALL CONFORM TO SUBSECTION 1005.04 AND BE INSTALLED IN ACCORDANCE WITH SUBSECTION 601.09(C)(3) AND NO ADDITIONAL SEALANT IS REQUIRED.
- EXCEPT AS NOTED BELOW, DOWEL BARS & TIE BARS SHALL BE HELD IN PLACE BY SUPPORTS SIMILAR TO THE ONES SHOWN, OR APPROVED EQUALS. APPROVED MECHANICAL PLACEMENT OF DOWEL BARS AND TIE BARS WILL BE ALLOWED WITH ALL PAVING METHODS. WHEN DOWEL BAR BASKETS ARE USED, APPROXIMATELY THE CENTER 7" OF SPACER WIRES, THAT SPAN ACROSS THE JOINT, SHALL BE CLIPPED AND REMOVED AFTER STAKING BASKETS IN PLACE.
- INSTALL GEOTEXTILE FABRIC UNDER ALL TCJ, CJ, AND EJ JOINTS WHEN CONCRETE PAVEMENT IS PLACED ON UNSTABILIZED OR UNTREATED BASE COURSES OR SUBBASES. WHEN DOWEL BARS ARE MECHANICALLY IMPLANTED THE GEOTEXTILE FABRIC SHALL BE ANCHORED TO THE BASE COURSE WITH PINS.
- WHEN CONSTRUCTING CONCRETE CURB AND GUTTER ADJACENT TO NEW P.C.C. PAVEMENT, USE TYPE LCJ JOINT. WHEN ADJACENT TO EXISTING P.C.C. PAVEMENT, USE TYPE LBJ JOINT. THE FIRST LOAD TRANSFER DEVICE SHALL BE INSTALLED 18" FROM THE PAVEMENT EDGE.

- TRANSVERSE EXPANSION JOINTS ARE NOT TO BE USED FOR CONSTRUCTION JOINTS.
- CONCRETE SHOULDERS:
  - CONSTRUCT TCJ JOINTS IN ACCORDANCE WITH SECTION B-B.
  - CONSTRUCT LCJ JOINTS IN ACCORDANCE WITH TYPE LCJ DETAIL AND LJ JOINTS IN ACCORDANCE WITH SECTION D-D.
  - USE THE MAXIMUM SHOULDER THICKNESS WHEN DETERMINING DOWEL BAR AND TIE BAR SIZES IN TABLE 1.
  - WHEN SKEWED JOINTS ARE USED ON MAINLINE PAVING THE SHOULDER TCJ JOINTS MAY BE SKEWED OR CONSTRUCTED AT 90°.
  - SHOULDER JOINTS AND JOINT MATERIALS SHALL MATCH THE MAIN LINE.
  - HEIGHT OF DOWEL BASKET SHALL BE BASED ON THE THINNEST SHOULDER THICKNESS. ALSO VARYING HEIGHT DOWEL BASKETS WILL BE ALLOWED.
- TIEBARS SHALL NOT BE PLACED WITHIN 18" OF CONTRACTION OR EXPANSION JOINTS.

TABLE 1  
(ALL DIMENSIONS ARE IN INCHES)

PAVEMENT THICKNESS	SMOOTH DOWEL BARS			DEF. TIE BARS			MINIMUM DEPTH OF JOINT		KEYWAY	
	"T" SIZE	LENGTH	SPACING	SIZE	LENGTH	SPACING	TCJ & CJ	LJ	A ±1/4"	B ±1/4"
8	1 1/4	18	12	1/2	24	24	2 3/4*	3	2 1/2	1 1/4
9	1 1/4	18	12	1/2	24	24	3 *	3 1/2	2 1/2	1 1/4
10	1 1/2	18	12	1/2	24	24	3 1/2 *	4	2 1/2	1 1/4
11	1 1/2	18	12	5/8	30	24	3 1/2	4	2 1/2	1 1/4
12	1 1/2	18	12	5/8	30	24	4	4 1/2	3	1 1/2
13	1 1/2	18	12	5/8	30	24	4	4 1/2	3	1 1/2
14	1 1/2	18	12	5/8	30	24	4 1/2	5	3	1 1/2

\* SEE DETAIL "E"